

**WHAT IS CLAIMED IS:**

1. A system for storing data, the system comprising:  
one or more member cubes for storing data partitioned along a dimension;  
5 a control cube for accessing the member cubes.
2. The system as claimed in claim 1, wherein the control cube has an entire partitioned dimension relative to the member cubes.
- 10 3. The system as claimed in claim 2, wherein the control cube further has:  
a listing of other dimensions of the member cubes; and  
a listing of measures of the member cubes.
4. The system as claimed in claim 1, wherein the data is partitioned along the time  
15 dimension.
5. The system as claimed in claim 4, wherein the control cube has:  
an entire time dimension relative to the member cubes;  
a listing of other dimensions of the member cubes; and  
20 a listing of measures of the member cubes.
6. The system as claimed in claim 5, wherein a member cube is added to the system.
7. The system as claimed in claim 6, wherein a member cube is removed from the  
25 system.
8. The system as claimed in claim 5, wherein the control cube restricts access to member cubes.
- 30 9. The system as claimed in claim 5, further comprising a plurality of control cubes, each control cube coupled with a group of member cubes from a pool of member cubes to form a separate dimension-based partitioned cube.

10. The system as claimed in claim 9, wherein different control cubes over the same pool of member cubes restrict data access to different portions of data for different users.
- 5 11. The system as claimed in claim 2, wherein a member cube is the control cube of another dimension-based partitioned cube.
12. A method of transforming a body of data into a dimension-based partitioned cube, the method comprising the steps of:
- 10       partitioning the data into one or more dimension-based partitions;  
      creating member cubes corresponding to the one or more dimension-based partitions; and  
      creating a control cube for representing the data distributed over the member cubes.
- 15 13. The method as claimed in claim 12, wherein the data is partitioned along the time dimension.
14. The method as claimed in claim 13, wherein the data is partitioned into equidistant time intervals.
- 20 15. The method as claimed in claim 13, wherein the data is partitioned into non-equidistant time intervals.
16. The method as claimed in claim 13, wherein the data is partitioned into a sliding window of time intervals.
- 25 17. A method of querying a dimension-based partitioned cube, the method comprising the steps of:
- 30       analyzing a query received for a body of data organized into a dimension-based partition cube;  
      redirecting the query to one or more member cubes; and  
      aggregating results received from the one or more member cubes.

18. The method as claimed in claim 17, wherein the data is partitioned along the time dimension.

5 19. An online analytical processing query engine comprising a logic module for implementing the method of claim 17.

20. An online analytical processing query engine comprising a logic module for implementing the method of claim 18.